

REMARKS

Claim Objections

Claims 10 and 12-20 have been amended to correct typographical errors.

All of the foregoing amendments correct minor typographical errors, provide consistent terminology, were not made for reasons related to patentability, and do not introduce any new matter. Accordingly, reconsideration and withdrawal of the foregoing objections and rejections to the specification and claims is respectfully requested.

Other Claim Amendments

Claim 21 was amended, and claims 24 and 25 were added, to more particularly point out and distinctly claim novel and patentable subject matter.

Thus, claims 1 through 25 are currently pending. No new matter is presented in the amendments to the claims, and such amendments are deemed unobjectionable. Entry thereof is respectfully requested. It is also respectfully requested that the Examiner reconsider the present application and claims as currently pending in view of the following remarks.

Allowable Subject Matter

The Examiner's indication that claims 3-6, 8, 13-16, and 18 define allowable subject matter and would be allowable if rewritten in independent form is acknowledged with appreciation.

For the reasons below, all of the independent claims in the application and, hence, the claims depending therefrom, are novel and patentable. Therefore, the Applicant has not at this time rewritten claims 3-6, 8, 13-16, and 18 in independent form, but respectfully reserves the right to do so at a later time during prosecution if necessary.

Rejection Of Claims 1, 2, 7, 9-12, 17, 19-23 Under § 102

Each of Applicant's independent Claims 1 and 22 were rejected under 35 USC § 102(b) as being anticipated by or lacking novelty in view of Mueller '376, Andre, and Mueller '284. Also, each of Applicant's independent claims 11 and 21 were additionally rejected under 35 USC § 102(b) as being anticipated by or lacking novelty in view of the Mueller '376 and Andre references.

Each of independent claims 1, 11, 21, and 22 define both novel and patentable subject matter over Mueller '376, Andre, and Mueller '284 for the following reasons.

The References

The Mueller '376 reference discloses a chuck C, which includes a ring 13 bolted to a base 12. A resilient inflatable bladder ring 45 is mounted to an annular bladder ring support 44, which is mounted atop the ring 13. A fluid chamber 44b is defined between the bladder ring 45 and bladder ring support 44. An outboard collet 22 is bolted to a piston 21, which is positioned in a cylinder 20 defined by the base 12 and ring 13. Finally, a cover ring 48 is bolted to the ring 13.

The Andre reference discloses a main body 30 carrying an annular retainer 70, which in turn carries a polymeric ring 26, wherein a fluid chamber 18 is defined therebetween. A tubular metal sleeve 14 is carried on the ring 26 and includes tabs 62 received in slots 64 of a stop ring 50 to drive the sleeve 14.

The Mueller '284 reference discloses a chuck apparatus 10 having a chuck body 20 including a base 22 and an annular chucking module 34. An expansible bladder ring 82 is mounted on a bladder retainer 78, which is bolted to the chuck body 20.

Claims 1 and 22

Claims 1 and 22 recite, *inter alia*, at least one drive member carried by a body, wherein a fluid chamber is at least partially defined therebetween. Claims 1 and 22 also recite, *inter alia*, that the at least one drive member has an annular flange portion axially abutting and attached to at least a portion of the body. Claims 1 and 22 further recite, *inter alia*, at least one driven member is carried by the body and has at least one displacement relief therein.

Each cited reference discloses a ring mounted to a retainer, wherein a fluid chamber is defined therebetween, and wherein the retainer is carried by a body. But the cited references each fail to disclose the ring carried by the body with the fluid chamber at least partially defined therebetween. The cited references also fail to disclose an annular flange portion of a drive member axially abutting and attached to the body. Applicant notes that the Office Action only generally refers to the drawing figures of the cited references' and fails to specifically enumerate an annular flange portion in any of the cited references and how such a flange portion axially abuts and is attached to the

body. The Mueller references also fail to disclose a driven member carried by the body, which body also carries the drive member.

The specific construction and arrangement of Applicant's claims 1 and 22 has the significant practical advantages of providing a workholding apparatus that resists twisting under high torsional loads such as those due to high cutting tool forces. Neither this specific construction and arrangement nor its significant practical advantages are disclosed, suggested or taught to skilled persons by the Mueller '376, Andre, and Mueller '284 references whether considered alone or in combination. Accordingly, claims 1 and 22 define novel and patentable subject matter and are allowable for at least these reasons.

Claim 11

Claim 11 recites, *inter alia*, at least one diaphragm carried by a body, wherein a fluid chamber is at least partially defined therebetween. Claim 11 also recites, *inter alia*, that the at least one diaphragm has an annular flange portion axially abutting and attached to at least a portion of the body. Claim 11 further recites, *inter alia*, at least one collet is carried by the body and has at least one displacement relief therein.

Each cited reference discloses a ring mounted to a retainer, wherein a fluid chamber is defined therebetween, and wherein the retainer is carried by a body. But the cited references each fail to disclose the ring carried by the body wherein the fluid chamber is at least partially defined therebetween. The cited references also fail to disclose an annular flange portion of a diaphragm axially abutting and attached to the body. Applicant notes that the Office Action only generally refers to the drawing figures of the cited references' and fails to specifically enumerate an annular flange portion in

any of the cited references and how such a flange portion axially abuts and is attached to the body. The Mueller references also fail to disclose a collet carried by the body, which body also carries the diaphragm.

The specific construction and arrangement of Applicant's claim 11 has the significant practical advantages of providing a workholding apparatus that resists twisting under high torsional loads such as those due to high cutting tool forces. Neither this specific construction and arrangement nor its significant practical advantages are disclosed, suggested or taught to skilled persons by the Mueller '376, Andre, and Mueller '284 references whether considered alone or in combination. Accordingly, claim 11 defines novel and patentable subject matter and is allowable for at least these reasons.

Amended Claim 21

As amended, claim 21 recites, *inter alia*, a collet used in conjunction with a workholding apparatus including a diaphragm, wherein the collet has interengagement elements projecting therefrom and engaging the diaphragm to resist twisting of the collet.

Although the Andre reference discloses a tubular metal sleeve including tabs received in slots of a *stop ring* to drive the sleeve, the Andre reference fails to disclose a collet having interengagement elements engaging a *diaphragm*. Moreover, although the cited Mueller references disclose a collet bolted to a body or a piston, each reference fails to disclose a collet having interengagement elements engaging a *diaphragm*.

The specific construction and arrangement of Applicant's claim 21 has the significant practical advantages of providing a workholding apparatus that resists twisting of a collet under high torsional loads such as those due to high cutting tool forces.

Neither this specific construction and arrangement nor its significant practical advantages are disclosed, suggested or taught to skilled persons by the Mueller '376, Andre, and Mueller '284 references whether considered alone or in combination. Accordingly, claim 21 defines novel and patentable subject matter and is allowable for at least these reasons.

Independent Claims 1, 11, 21 and 22

In view of the discussion above regarding independent claims 1, 11, 21, and 22, each of these claims defines novel subject matter, which is not anticipated by the Mueller '376, Andre, and Mueller '284 references and also defines patentable subject matter over these references for at least the foregoing reasons. Accordingly, reconsideration and allowance of each of independent claims 1, 11, 21, and 22 is requested.

Dependent Claims

Each of the dependent claims 2, 7, 9, 12, 17, 19, 20, and 23, which were rejected as being anticipated, is ultimately dependent on one of independent claims 1, 11, 21, and 22 and, hence, each defines novel and patentable subject matter over the cited references for at least the foregoing reasons.

Conclusion

Each of the independent claims and hence all of the claims 1-25 are believed to define novel and nonobvious patentable subject matter and to be in a condition for allowance for at least the foregoing reasons. Accordingly, reconsideration and allowance of all the claims 1-25 as amended is requested.

If, after considering this Response, the Examiner is of the view that any of the claims are not allowable, a telephone interview with Applicant's undersigned attorney Steve Walmsley is requested so that immediate consideration can be given to any further amendments suggested by the Examiner or otherwise needed to place all of the claims in a condition for allowance. The Examiner is asked to initiate this interview by telephoning Steve Walmsley who normally can be reached at (248) 689-3500 Monday through Friday between 9:00 A.M. and 5:00 P.M.

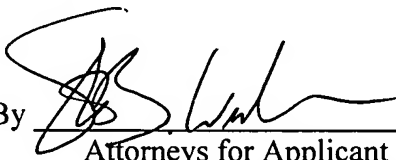
Our check for \$50.00 is enclosed to cover the fee for the additional claims. If this fee is insufficient as determined by Patent Office calculations, it is hereby authorized and respectfully requested that any deficiency be charged to our Deposit Account No. 50-0852.

Respectfully submitted,

Reising, Ethington, Barnes, Kisselle, P.C.

WHF/SBW:sal

Enclosures

By 

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IN THE DRAWINGS:

The attached replacement sheet of drawings includes changes to FIG. 4. This sheet, which includes FIGS. 4 and 5, replaces the original sheet including FIGS. 4 and 5. Pending approval of the Examiner, Applicant would like to amend the drawings in the above-identified application as follows:

In Figure 4 please add a leader line from numeral 138 to its corresponding drive member.

The requested amendment is annotated in red on the attached marked-up copies of the drawings originally filed in the parent application in accordance with MPEP 608.02(v). Replacement drawings incorporating the above requested corrections are enclosed herewith. Entry and approval of the replacement drawings is, therefore, respectfully requested.

Attachments: Replacement Sheet

Annotated Drawing Sheets Showing Changes

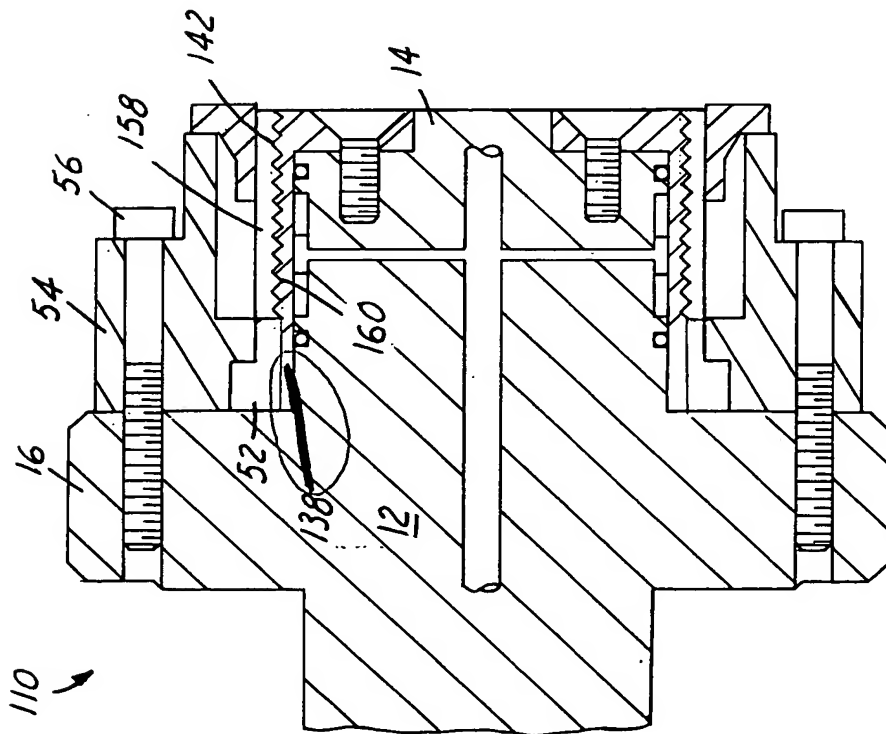


FIG. 4

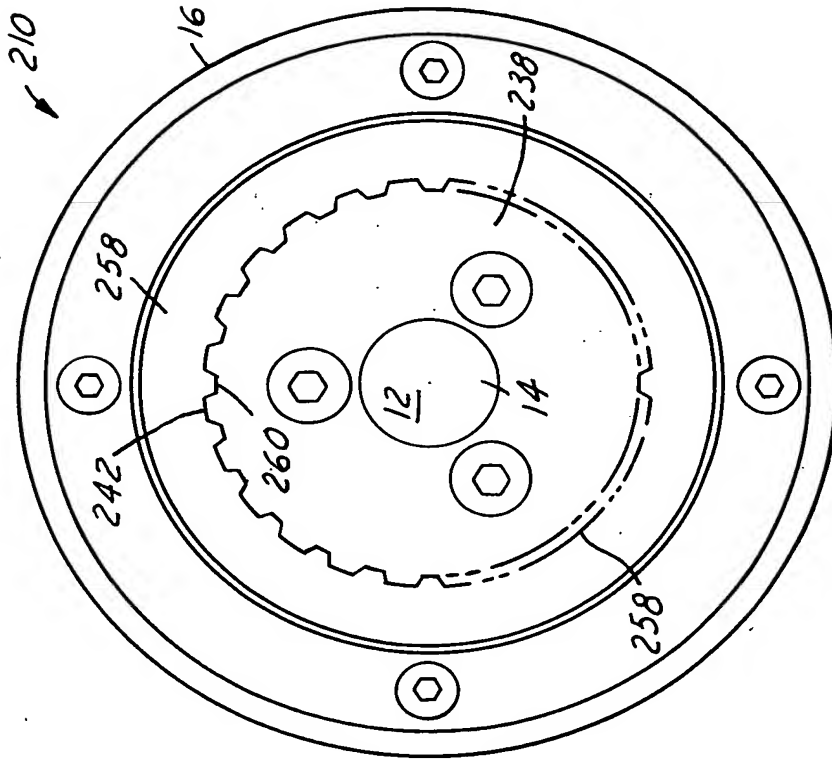


FIG. 5